

11 W. I. M.

23242. Tel. teleutive party i preizvoditel'nost' tselia. Tserf. [redacted] st:1649,
No. 5, n. 20-22.

Sp.: 1945

BULOV, I. U.

29046 V bor'be za dosrochnoe vypolnenie pyatiletki (na zavodakh Glavtor fmasha).
Tori. prav-st', 1949, № 9, S. 4-6

SO: Letopsi' Zhurnal' nykh Statey, Vol. 39, Moskva, 1949

HULMV, I.N.

Peat machinery plants are making efforts to fulfill assumed obligations.
Trudy prom. 30 no.7:18-19 J1 '53. (MILIA 6:7)

1. Glavenergozapchast'. (Machinery industry)

RULEV, I. N.

Peat

Economical use of materials at the plants
of the Main Administration of Peat Machinery
Construction., Torf. prom., 29, No. 2, 1952.

Monthly List of Russian Accessions, Library of Congress, April 1952. UNCLASSIFIED.

RULEV, I. N.

Machinery - Trade and Manufacture

Economical use of materials at the plants of
the Main Administration of Peat Machinery Con-
struction. Torf. prom. 29 no. 2, 1952.

Monthly List of Russian Accessions, Library of Congress, April 1952. UNCLASSIFIED.

RULEV, I. N.

USSR (600)

Machinery Industry

Innovators of plants building peat machines., Torf prom., 29, no. 8, 1952.

Monthly List of Russian Accessions, Library of Congress, October 1952. UNCLASSIFIED

RULEV, I. N.

Peat Industry

Creative cooperation. Torf. prom. 30 no. 1, 1953

9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

RULEV, N.

Step by step. Okhr. truda i sots. strakh. 6 no.5:23 My '63.
(MIRA 16:8)

(Leningrad—Insurance, Social)
(Leningrad—Pensions)

ABDUAZIZOVA, G.; AGAFONOV, P., bukhalter; RULEV, N.

Health resorts of Kirghizistan today. Okhr.truda i sots.
strakh. no.9:48-51 S '59. (MIRA 13:1)

1. Brigada zhurnala Vsesoyuznogo tsentral'nogo soveta profsoyuzov "Okhrana truda i sotsial'noye strakhovaniye." 2. Predsedatel' respublikanskogo komiteta profsoyuza meditsinskikh rabotnikov (for Abduazizova). 3. Spetsial'nyy korrespondent zhurnala "Okhrana truda i sotsial'noye strakhovaniye" (for Rulev). (Kirghizistan--Health resorts, Watering places, etc.)

RULEV, N.

The fourth signature. Okhrana tuda i sotsial'naya strakhovaniye.
Mr '59. no. 3:58-60
(MIRA 12:4)

1. Korrespondent zhurnala "Okhrana tuda i sotsial'naya strakhovaniye."
(Disability evaluation)

RULMEV, N. (Riga, Kemerri)

Kemerri spa does not make use of all its possibilities. Okh. truda i sots. strakh. no.6:60-63 Je '59. (MIRA 12:10)

l. Spetsial'nyy korrespondent zhurnala "Okhrana truda i sotsial'noye strakhovaniye."

(Kemerri--Health resorts, watering places, etc.)

FOMIN, V.M.; RULEV, N.A.; MARINOV, N.A.

Organize the conservation of underground water. Razved. i okh.
nedr 25 no.1:31-36 Ja '59. (MIRA 12:2)

1. Ministerstvo geologii i okhrany nedr SSSR i Vsesoyuznyy
nauchno-issledovatel'skiy institut gidrogeologii i inzhenernoy
geologii.
(Water, Underground)

ANTIPIN, V.I.; BUDANOV, N.D.; KOTLUKOV, V.A.; LEYBOSHITS, A.M.; PROKHOROV, S.P., kand.geol.-miner.nauk; SIRMAN, A.P.; FALOVSKIY, A.A.; SHTEYN, M.A.; BASKOV, Ye.A.; BOGATKOV, Ye.A.; GANEYEVA, M.M.; ZARUBINSKIY, Ya.I.; IL'INA, Ye.V.; KATSIYAYEV, S.K.; KOMPANIYETS, N.G.; NELYUBOV, L.P.; PONOMAREV, A.I.; REZNICHENKO, V.T.; RULEV, N.A.; TSELIGOROVA, A.I.; ALSTER, R.K.; SHVETSOV, P.F.; VYKHODTSEV, A.P.; KOTOVA, A.I.; KASHKOVSKIY, G.N.; LOSEV, F.I.; ROMANOVSKAYA, L.I.; PROKHOROV, S.P.; MATVEYEV, A.K., dots., retsenzent; CHEL'TSOV, M.I., inzh., retsenzent; KUDASHOV, A.I., otv. red.; PETRYAKOVA, Ye.P., red. izd-va; IL'INSKAYA, G.M., tekhn. red.

[State of flooding and conditions for the exploitation of coal-bearing areas in the U.S.S.R.] Obvodnennost' i usloviia ekspluatatsii mestorozhdenii uglel'nykh raionov. Pod nauchn. red. S.P. Prokhorova. Moskva, Gosgortekhizdat, 1962. 243 p.

(MIRA 15:7)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrogeologii i irzhenernoy geologii. 2. Kafedra geologii i geo-khimii goryuchikh iskopayemykh Moskovskogo Gosudarstvennogo universiteta (for Matveyev).

(Coal geology) (Mine water)

AUTHORS: Fomin, V.M., Rulev, N.A., and Marinov, N.A. SGV/132-59-1-8/18

TITLE: Organize the Conservation of Underground Waters (Organizovat' okhranu podzemnykh vod)

PERIODICAL: Razvedka i okhrana nedor, 1959, Nr 1, pp 31-36 (USSR)

ABSTRACT: The intensive exploitation of underground waters in the USSR for industrial and agricultural purposes causes the lowering of the piezometric level, and the deterioration of the quality of these waters. The authors, after citing many cases of the misuse of these natural resources, find that special measures must be urgently taken to prevent superfluous expenditure of the underground waters. Such laws already exist in many states of the US.

ASSOCIATION: Ministerstvo geologii i okhrany nedor, SSSR (The Ministry of Geology and Conservation of Mineral Resources of the USSR); VSEGINGEO

Card 1/1

TREBIN, F.A.; BERNSHTEYN, M.A.; YELOVNIKOV, S.I.; RULEV, N.A.; SOLNTSEV, O.A.

Prospects for the development of the gas and oil industries of
the Komi A.S.S.R. Neft. khoz. 43 no.3:34-39 Mr '65.
(MIRA 18;6)

BORODATOV, V.A., kand.biolog.nauk; DEMIDOV, V.F.; DUKHANIN, A.N.; ZHUKOVA, A.I.; KADIL'NIKOV, Yu.V.; KARPECHENKO, Yu.L.; KORZHOVA, Yu.A.; MAKHOVER, Z.I.; PETROV, G.P.; PROSVIROV, Ye.S.; RULEV, N.N.; SOKOLOV, O.A.; SPICHAK, M.K.; KHROMOV, N.S.; SHUIN, V.I., red.; FORMALINA, Ye.A., tekhn.red.

[Study of tuna fish and sardines in the eastern part of the Atlantic Ocean; report on the cruise of the scientific fishery survey expedition of 1957] Issledovaniia tunsa i sardiny v vostochnoi chasti Atlanticheskogo okeana; reisovyj otchet nauchno-poiskovoi ekspeditsii, 1957 g. Moskva, 1959. 158 p. (MIRA 13:6)

l. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo rybnogo khozyaystva i okeanografii.
(Atlantic Ocean--Tuna fish) (Atlantic Ocean--Sardines)
(Fish, Canned)

RULEV, Nikolay Mesterovich; NOSOV, N.T., otv.red.; ALEKSEYEV, A.Ya.,
spetsred.; KUZ'MINA, V., red.; NIKOLAYEVA, T., tekhn.red.

[Preliminary processing of the Atlantic herring; manual for
headfishermen working on fishing ships] Pervichnaia obrabotka
atlanticheskoi sel'di; posobie dlja rybmasterov promyslovych
sudov. Kaliningrad, Kaliningradskoe knizhnoe izd-vo, 1960.
(MIRA 14:2)

78 p.

(Herring fisheries)

20594

S/147/61/000/001/003/016
E031/E135

26.3110

AUTHOR: Rulev, V.A. (Moscow)

TITLE: On the Necessary and Sufficient Conditions for an Extremum in Variational Problems Concerned With the Flight Dynamics of Flying Devices

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Aviatsionnaya tekhnika, 1961, No. 1, pp. 19-26

TEXT: After the solution of any variational problem, when an extremal has been found, it is necessary to verify that the given functional is realised on the extremal, because in order to find the extremal only the satisfaction of the Euler equations and the boundary conditions were required. In making the verification a complication sometimes arises in that the functional always has an extremum. This can be overcome by using one of the differential equations to find an expression for one of the required functions. Then a new auxiliary function can be determined and a new system of Euler equations is constructed which can be shown to describe the same extremum. The present paper is concerned with the proof that the Jacobi condition can be satisfied and gives an expression for

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20594

S/147/61/000/001/003/016
E031/E135

On the Necessary and Sufficient Conditions for an Extremum in
Variational Problems Concerned With the Flight Dynamics of Flying
Devices

the Weierstrass function on the extremum and the Clebsh condition
for the problem of optimum manoeuvre in the vertical plane. The
usual problem of flight dynamics is generalised somewhat and
includes several special cases. It is shown that the Jacobi
condition is always satisfied if the Lagrangian curve on the
extremal can be surrounded by a field of extremals, i.e. there are
no points between the end points which are conjugate with the
initial point. To find the conjugate points the associated
variational problem for a minimum of the second variation must be
solved, for which the Euler equations are the Jacobi equations for
the initial problem. Three cases arise. Firstly, the connection
equations which only contain the derivatives of as many required
functions as there are connection equations. In this case the
Jacobi condition is always satisfied. Secondly, the connection
equations may contain derivatives of all the required functions,
and again the Jacobi condition is always satisfied.

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S/147/61/000/001/003/016
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On the Necessary and Sufficient Conditions for an Extremum in
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Finally the number of functions with their derivatives occurring
in the connection equations may be less than the total number of
required functions but greater than the number of equations, and
again the same conclusion is true. Consider now the
Weierstrass function for the case of optimum manoeuvre in the
vertical plane. The case of optimum manoeuvre in the horizontal
plane was discussed in another paper of the author (Ref.5:

Nauchno-metodicheskiy sbornik, No. 21-22, VVIA im.
N.Ye. Zhukovskogo, 1960). It is assumed that the thrust depends
only on the height and velocity and that the polar of the
aircraft is described by a family of parabolae. From the first
part of the paper it is known that the Jacobi condition is always
fulfilled and to verify that the functional (which expresses the
minimum time of flight, or the minimum fuel consumption or the
maximum horizontal range, for examples) has an extremum on the
trajectory which satisfies the Euler equations and the boundary

Card 3/4

20594

S/147/61/000/001/003/016
E031/E135

On the Necessary and Sufficient Conditions for an Extremum in
Variational Problems Concerned with the Flight Dynamics of Flying
Devices

conditions, it is only necessary to discuss the Weierstrass
function. The device described of deriving a new set of Euler
equations is adopted. The condition that the Weierstrass
function is not negative leads to a condition on a quantity "y".
The Clebsh condition is easily derived on the basis of the
transformation used to derive the Weierstrass function.
There are 5 Soviet references.

SUBMITTED: June 23, 1960

Card 4/4

V F RUL'Y and A M V RAPKO

"Development of a Device for Measuring the Degree of Coupling in Magnets" from Annotations of Works Completed in 1955 at the State Union Sci. Res. Inst. Min. of Radio Engineering Ind.

So: B-3,080,964

S/263/62/000/011/009/022
I007/I207

AUTHOR Rulev, V G and Kharin, D. A.

TITLE Seismographs for recording large displacements

PERIODICAL: Referativnyy zhurnal, otdel'nyy vypusk. 32. Izmeritel'naya tekhnika, no. 11, 1962, 22.
abstract 32.11.165. "Tr. In-ta fiz. Zemli AN SSSR", no. 4, 1961, 57-71

TEXT: Description is given of an electrodynamic seismograph of the ВБП-3 (VBP-3) type designed at the Institut fiziki Zemli AN SSSR (Institute of Geophysics, AS, USSR for recording soil vibrations caused by explosions and having an amplitude of up to 20 cm over a frequency range of 0.01-1 sec. The seismograph pendulum consists of a flat aluminum frame provided with brass spindles supported by bearings, which in turn are mounted in a brass clamp. The latter is rigidly fastened to the pole pieces of a permanent horseshoe magnet bolted to the bed plate of the seismograph. The pendulum is provided with a copper frame intended to carry the winding of a flat induction-coil which constitutes a converter. The clamp, magnet and bed plate form a single measuring unit moving along the object to be measured; during this movement the pendulum tends to maintain its motionless position. This movement induces in the coil an E.M.F. proportional to the speed of translation of the measuring unit relative to the pendulum; the E.M.F. is applied to the ГБ-Ш (GB-Sh) galvanometer of a ПОБ-12М (POB-12M) or POB-14M electromagnetic oscilloscope. Test results are reported and directions are given concerning the installation of the device for practical use. There are 12 figures and 12 references

[Abstracter's note: Complete translation.]

Card 1/1

KARPOV, Aleksey Vladimirovich; HULEV, V.V., inzh., retsenzent; SHCHUKIN, A.I., kand.tekhn.nauk, retsenzent; MASLOVA, Ye.F., red.; KISELEVVA, A.A., tekhn.red.

[Electric equipment for refrigerators; large-current electric units] Elektrooborudovanie kholodil'nikov; elektrostanovki sil'nogo toka. Moskva, Gos.izd-vo torg.lit-ry, 1960. 207 p.
(MIRA 13:?)

(Refrigeration and refrigerating machinery)

RULEV, V.V.

Pharmacological properties of complex esters of the α -form of
1-alkenyl-2,5-dimethyl-4-piperidinols. Farm.i toks. 23 no.1:55-
61.Ja-F '60. (MIRA 14:3)

1. Kafedra farmakologii (zav, - prof. I.I.Sivertsev) Kazakhskogo
meditsinskogo instituta, Alma-Ata.
(PIPERDINE)

RULEVA, T.T., meditsinskaya sestra

Characteristics of caring for patients with diabetes mellitus.
Med. sestra 22 no.9:49-51 S:63. (MIRA 16:10)
(DIABETES)

ACC NR: AP7002718 (A) SOURCE CODE: UR/0381/66/000/006/0050/0058

AUTHOR: Zaytsev, V. I.; Ruleva, T. Ya.; Fedorova, M. K.

ORG: none

TITLE: Testing the airtightness of welds and the base metal of a structure with GTI-3 and VAGTI-4 halide leak detectors

SOURCE: Defektoskopiya, no. 6, 1966, 50-58

TOPIC TAGS: hermetic seal, weld defect, flaw detection, welded seam, leak finder, halide leak finder, detector/GTI 3 leak finder, VAGTI 4 leak finder

ABSTRACT: The accuracy of the GTI-3 and VAGTI-4 portable halide leak detectors in determining the airtightness of metal structures is analyzed. Optimum conditions and test specifications (extent and rate of evacuation, magnitude of freon overpressure) determined experimentally are given. Orig. art. has: 5 figures and 6 tables. [Translation of authors' abstract] [SP]

SUB CODE: 15/SUBM DATE: 24Jan66/ORIG REF: 008/

Card 1/1

UDC: 620.179.18

Ruleva, V.

KULISH, V., sportsmen pervogo razryada; RULEVA, V., sportsmen pervogo
razryada.

Record parachute jumps from the stratosphere. Kryl.rod.8
no.11:6-7 N '57. (MIRA 10:12)
(Parachutists)

RULEVA, Z., master sporta SSSR.

~~A word to beginners. Prof.-tekhn. obr. 12 no.5:25-26 My '55.~~
~~(Physical education and training) (MIRA 8:8)~~

RUL'F, VLADIMIR, kand.ekon.nauk (Praga)

Efficiency of the new forms of trade in Czechoslovakia. Sov.
torg. no.4:47-52 Ap '59. (MIRA 12:6)
(Czechoslovakia--Self-service stores)

RULI, V.

Prolapse of the duodenal mucosa in a form of a diverticulum
in a patient with perforating gastric ulcer. Bul.Univ.Shtet.
Tirane no.3/4:107-113 '63.

1. Spitali klinik No.1, Tirane.

RULIKOWSKA, J. : PANIKOWSKA, B.

Geomorphic importance of lithology. p. 346.
Vol 25, no. 4, 1954. CZASOPISMO GEOGRAFICZNE. Wroclaw, Poland

So: Eastern European Accession. Vol 5, no. 4, April 1956

RULIN, V.P., podpolkovnik zapasa

Guard units of the Soviet Air Force. Vest.Vozd.Fl. no.1:73-79 Ja
'61. (MIRA 13:12)

1. Byvshiy zamestitel' komandira po politchasti 5-go gвардейского
истребител'ного авиационного полка.
(Russia—Air Force)

VESELOV, S.I.; GUSHCHINA, N.; MAKUSHKIN, L.G.; RULINA, L.B.; CHICHILO, I.K.; SHABUNIN, Ye.M.; CHILIKIN, M.G., prof.; YUSHKOV, S.B.; GOSIS, I.N.; RYABTSEV, N.I.; KRUPOVICH, V.I.; PETROV, N.I.; PATARUYEV, A.D.; BEYRAKH, Z. Ya., doktor tekhn. nauk

Twenty-first anniversary of the publication "Promyshlennia energetika". Prom. energ. 21 no. 1:5-7 Ja '66 (MIRA 19:1)

1. Nachal'nik Gosudarstvennoy inspeksii po energeticheskому nadzoru Ministerstva energetiki i elektrifikatsii SSSR (for Veselov).
2. Moskovskoye pravleniye nauchno-tehnicheskogo obshchestva energeticheskoy promyshlennosti (for Gushchina).
3. Predsedatel' Sverdlovskogo pravleniya Nauchno-tehnicheskogo obshchestva energeticheskoy promyshlennosti (for Makushkin).
4. Glavnnyy energetik Pervogo gosudarstvennogo podshipnikovogo zavoda (for Chichilo).
5. Glavnnyy energetik Moskovskogo metalurgicheskogo zavoda "Serp i molot" (for Shabunin).
6. Rektor Moskovskogo energeticheskogo instituta (for Chilikin).
7. Glavnnyy inzhener instituta Tyazhpromelektroprojekt (for Krupovich).
8. Glavnnyy konstruktor Moskovskogo zavoda teplovoy avtomatiki (for Beyrakh).

L 15639-66 ENT(m)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b) MJW/JD
ACC NR: AP6003312 (A)

SOURCE CODE: UR/0129/66/000/001/0057/0060

AUTHOR: Selyavo, A. L.; Lashko, N. P.; Rulina, Z. M.

33

B

ORG: none

TITLE: Effect of phase composition on the relaxation resistance of 1Kh12N2VMF
martensitic steel

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 1, 1966, 57-60

TOPIC TAGS: stress relaxation, martensitic steel, phase composition, carbide phase, tempering

ABSTRACT: The strength of coiled springs operating under conditions of stress relaxation, when the resistance to small plastic deformations is extremely high, is chiefly determined by the thermal stability of the structure of the solid solution and by the distribution, form and degree of dispersity of the carbide phases. Hence work parts operating under conditions of stress relaxation must be subjected to prior stabilizing heat treatment at temperatures above the working temperature. The relaxation resistance of martensitic steels containing 11-13% Cr such as the Soviet-developed 1Kh12N2VMF (EI961) steel (0.10-0.16% C, 10.5-12.0% Cr, 1.5-1.8% Ni, 1.60-2.00% W, 0.35-0.50% Mo, 0.18-0.30% V, 0.6% Si, 0.6% Mn, 0.025% S, 0.030% P) may be increased by additionally treating them with stronger carbide-forming elements (W and

Card 1/3

UDC: 620.181:669.14.018.45

L 15699-66

ACC NR: AP6003312

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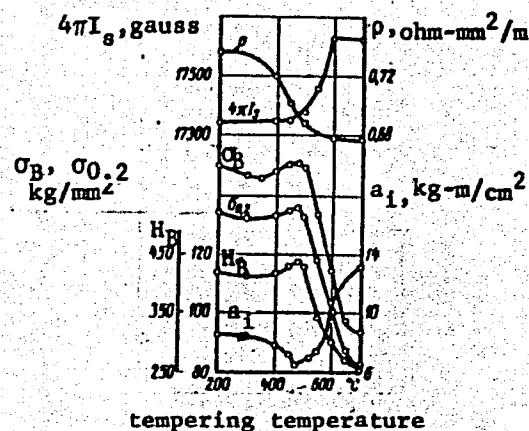


Fig. 1. Variation in physico-mechanical properties of 1Kh12N2VMF steel as a function of tempering temperature

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L 156 -66

ACC NR: AP6003312

(0)

Mo) and reducing their C content, 1Kh12N2VMF steel is used to fabricate various work parts (disks, blades, etc.) operating at temperatures of up to 600°C. The heat treatment of this steel consists in oil quenching from 1000-1020°C and tempering at 200-600°C. The pattern of variation of the mechanical (tensile strength σ_B , yield strength $\sigma_{0.2}$, impact strength a_i , Brinell hardness H_B) and physical (electric resistance ρ , magnetic saturation $4\pi I_s$) properties as a function of tempering temperature is shown in Fig. 1. This steel is characterized by the formation of the metastable high-disperse phase M_2C (a chromium-rich carbide with hexagonal structure) at 400-600°C. The lines on the radiogram of this phase are much more blurred than those of the other carbides, which indicates a high degree of dispersity of its particles. Additional tempering at 400°C for 100 and 500 hr causes the amount of the phase M_2C to increase from 0.82% to 1.20-1.35% by weight of the alloy. It is this phase that is responsible for the secondary hardness of 1Kh12N2VMF alloy. Fig. 1). Relaxation tests of specimen-springs ($d = 2$ mm, $D = 20$ mm, $H = 53$ mm, $t = 8$ mm, $n_{operating} = 6$), performed by the method described by A. L. Selyavo (Zavodskaya laboratoriya, 1960, no. 2) showed that the highest relaxation resistance of this steel at 300 and 350°C is observed following tempering at 450 and 500°C. Such tempering assures the segregation of the hardening disperse particles of the carbide M_2C while at the same time only minimally depleting the solid solution with respect to alloy elements. Thus, 1Kh12N2VMF steel displays a high relaxation resistance at temperatures of up to 350°C. Orig. art. has: 2 figures, 3 tables.

SUB CODE: 11, 13, 20/ SUBM DATE: none/ ORIG REF: 003/ OTH REF: 002

Card 3/3 SM

ACC NR: AP6020421

(A, N)

SOURCE CODE: P0/0087/66/000/002/0060/0062

AUTHOR: Gliszewski, L. (Master engineer); Oltuszewski, J. (Engineer); Rulka, J. (Master engineer)

ORG: [Gliszewski, Oltuszewski] Marine Institute, Gdansk (Instytut Morski); [Rulka] Polish Ocean Lines, Gdynia (Polskie Linie Oceaniczne)

TITLE: Results of protecting the submerged part of hulls of ships "Mickiewicz" and "Broniewski" [Paper was presented at the 8th Conference on Salt Water Corrosion held in Szczecine from 2 to 3 April 1965]

SOURCE: Technika i gospodarka morska, no. 2, 1966, 60-62

TOPIC TAGS: corrosion protection, sea water corrosion, cargo ship

ABSTRACT: Effects of cathodic protection and coatings on the corrosion resistance during five years are reported, including travels of the ships to the Far East, Africa, and America. The continuously submerged portion of the hulls was completely protected by combining protective coating and appropriate arrangement of sacrificial anodes, even under the fall and winter conditions prevailing in the Baltic. Asphaltic coating (type 23-91-115) and groups of zinc anodes in the ratio $L_{ag}:L_{sh} = 1/3-1/2$ were used, L_{ag} and L_{sh} being the total length of anode groups and the length of the ship, respectively. Measurements of the hull potential as indicator of protection were confirmed by visual observations. The method, developed by the Marine Institute

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ACC NR: AP6020421

(Instytut Morski), is recommended for general use on Polish vessels. Docking of ships at one year intervals, instead of the two years in present use, is recommended as well. Orig. art. has: 2 figures and 2 tables.

SUB CODE: 13/ SUBM DATE: none

Card 2/2

RULKA, J. mgr inz.

The Department of Technical Studies of the Polish Ocean Lines.
Tech gosp morska 12 no.9:277 S '62.

RULKA, J.

Rulka J. The Use of Heavy Fuels in Motor-Ships.
"Spalanie paliw cięciw w motorowych silowniach okrętowych".
Technika i Gospodarka Morska. No. 7, 1953, pp. 256-258, 2 figs.
Economic advantages of heavy oils as fuel for high compression marine engines. Specification of such modifications to the engine design as are required for the combustion of heavy fuels. Present requirements in heavy oils as regards the rate of the carbon, ash and water content, Oil-fuel system schemes for heavy fuels, and the functioning of such systems. Programme of measurements to be carried out in an experimental engine room with a view to comparing operating conditions between heavy fuels and gas oil.

RULKA, Jerzy, mgr inz.

Certain aspects of using shipping containers from the point of view of shipowners. Tech gosp morska 13 no.9±270-273 S'63

1. Polskie Linie Oceaniczne, Gdynia.

RULKO, F.; PROSKURNINA, N.F.

Structure of sophoridine and "leontine" alkaloids. Part 2: Space configuration of sophoridine. Zhur. ob. khim. 32 no.5:1690-1695 My '62. (MIRA 15:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.
(Alkaloids)

CIESLAK, Jerzy, doc. drt; KUDUK, Janina; RULKO, Felicja.

Gentiana lutea alkaloids. Acta Pol. pharm. 21 no.3:265-273 '61.
Acta Pol. pharm. 21 no.3:265-273 '64

I. Z Katedry Chemii Organicznej Akademii Medycznej we Wrocławiu
(Kierownik: doc. dr. J. Cieslak)

RULKO, F.

Structure of sophoridine and "leontine" alkaloids. Part 3:
Isomerization of sophoridine. Configuration of isosophoridine.
Zhur.ob.khim. 32 no.5:1695-1699 My '62. (MIRA 15:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko farmatsevticheskiy
institut imeni S. Ordzhonikidze.
(Alkaloids)

RULKO, F. Cand Chem Sci -- "Study of the structure of alkaloids of sophoridin and leontin." Mos, 1960. (Min of Health USSR. All-Union Sci Res Chem-Pharm Inst im S. Ordzhonikidze "VNIKhFI"). (KL, 1-61, 183)

RULKO, F.; PROSKURNINA, N.F.

Establishment of the structure of sophoridine and leontine.
Zhur. ob. khim. 31 no.1:308-313 Ja '61. (MIRA 14:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut imeni S. Ordzhonikidze.
(Leontine) (Sopforidine)

RULKO, Felicja

Total synthesis of longifolane. Wiad chem 12 no.12:733-736
D '64.

RUL'KOV, D.I., otv. za vypusk; VITASHKINA, S.A., red.izd-va; YERMAKOVA,
T.T., tekhn.red.

[Service regulations on ships of the Ministry of the River Fleet
of the R.S.F.S.R.] Ustav sluzhby na sudakh Ministerstva rechnogo
flota RSFSR. Moskva, Izd-vo "Rechnoi transport", 1959. 88 p.
(MIRA 13:5)

1. Russia (1917- R.S.F.S.R.) Ministerstvo rechnogo flota.
(Inland water transportation--Employees)

SUTYRIN, Mikhail Andreyevich; RUL'KOV, D.I., retsenzent; POKROVSKIY,
G.A., retsenzent; ALEKSEYEV, V.I., red.izd-va; BOBROVA, V.A.,
tekhn.red.

[Directives on rules and regulations in navigation on inland
waterways of the R.S.F.S.R.] Rukovodstvo po izucheniiu pravil
plavaniia po vnutrennim vodnym putiam RSFSR. Moskva, Izd-vo
"Technoi transport," 1959. 171 p. (MIEA 13:6)
(Inland navigation--Laws and regulations)

RUL'KOV, Dmitriy Ivanovich; SARATOV, Vladimir Fadeyevich;
SHCHEPETOV, I.A., retsenzent; PUSHKAREV, L.V., retsenzent;
PIL'KIN, V.N., retsenzent; CHESTNOV, Ye.I., inzh., red.; LOBANOV,
Ye.M., red.izd-va; BODROVA, V.A., tehn. red.

[Ship operation and maintenance] Sudovye raboty. Moskva,
Izd-vo "Rechnoi transport", 1963. 283 p. (MIRA 17:1)

1. Nachal'nik Sudokhodnoy inspeksii Volzhskogo basseyna
(for Shchepetov). 2. Prepodavatel' Omskogo rechnogo uchi-
lishcha (for Pil'kin).

RUL'KOV, D.I., etv. za vypusk; VITASHKINA, S.A., red.izd-va;
YERMAKOVA, T.T., tekhn.red.

[Regulations for service on ships of the Ministry of Inland
Water Transportation of the R.S.F.S.R.] Ustav sluzhby na
sudakh Ministerstva rechnogo flota RSFSR. Moskva, Izd-ve
"Rechnoi transport," 1959. 88 p. (MIRA 12:6)

1. Russia (1917- R.S.F.S.R.) Ministerstvo rechnogo flota.
(Inland water transportation) (Seamanship)

RUL'KOV, Dmitriy Ivanovich; SIRATOV, Vladimir Fadeyevich

[Navigation buoys and beacon markers and signaling on inland waterways] Znaki sudeckhodnoi obstarovki i signalizatsii na vnutrennikh vodnykh putiakh. Izd.4., dop. 1
perer. Moskva, Izd-vo "Transport," 1964. 127 p.
(MIRA 17:7)

RUL'KOV, Dmitriy Ivanovich; SARATOV, Vladimir Fadeyevich; SHUMBYKO, G.K.,
retsenzent; KONSTANTINOV, V.P., retsenzent; KUSHCH, L.K., red.;
LOBANOV, Ye.M., red.izd-vs; BOBROVA, V.A., tekhn.red.

[Nautical equipment of ships for inland navigation] Navigatsionnoe
oborudovanie sudov vnutrennego plavaniia. Moskva, Izd-vo "Rechnoi
transport," 1959. 127 p.
(Inland navigation) (Nautical instruments)

(MIRA 13:1)

HUL'KOV, Dmitriy Ivanovich; SARATOV, Vladimir Fadeyevich; SHPALENSKIY, M.A.,
red., ALEXEYEV, V.P., red.izd-va; KUZ'MIN, G.M., tekhn.red.

[Navigation marks, lights, and signaling on inland waterways]
Znaki sudokhodnoi obstanovki i signalizatsii na vnutrennikh
vodnykh putiakh. Moskva, Izd-vo "Techno transport," 1958.
202 p. (MIRA 12:2)
(Merchant marine--Signaling) (Ships' lights)

HUL'KOV, D.I., inzh.

Professional self-improvement by ship captains during the winter
season. Rech. transp. 17 no.1:40 Ja '58. (MIRA 11:3)
(Navigation—Study and teaching)

RUL'KOV, Dmitriy Ivanovich; SARATOV, Vladimir Fadeyevich; ALEKSEYEV,
V.I., red.izd-va; REMNEVA, T.T., tekhn. red.

[Marker beacons and signals on inland waterways] Znaki sudokhod-
noi obstanovki i signalizatsii na vnutrennikh vodnykh putiakh.
Izd.3. Moskva, Izd-vo "Rechnoi transport," 1962. 125 p.
(MIRA 15:6)

(Inland navigation) (Beacons)

RABINOVICH, Moisey Markovich; RUL'KOV, Dmitriy Ivanovich;
KREMLYANSKIY, A.N., red.; VOLCHOK, K.M., tekhn. red.

[Principles of navigation at sea and on lakes] Osnovy mor-
skogo i ozernogo sudovozhdeniya; sbornik zadach. Leningrad,
Izd-vo "Rechnoi transport," 1962. 158 p. (MIRA 16:5)
(Navigation—Problems, exercises, etc.)

RUL'KOV, G.

Affairs run well. Okhr.truda i sots.strakh. 4 no.7:5-7 Jl '61.
(MIRA 14:7)

1. Predsedatel' rabochkoma sovkhoza "Borets", Khakasskaya oblast,
Krasnoyarskogo kraya.
(Khakass Autonomous Province—State farms)
(Agriculture—Hygienic aspects)

RYABINKIN, V.P., inzh.; RUL'KOV, S.V., inzh.

Cold welding of cast iron. Svar. preizv. no.2:37-42 F '59.
(MIRA 12:1)

1.Zavod "Krasnoye Sormve" imeni A.A. Zhdanova.
(Cast iron--Welding)

BLINOVA, Z.A., kand. tekhn. nauk; VINITSKIY, L.Ye., kand. tekhn. nauk;
RUL'KOV, V.I., inzh.; Prinimali uchastiye: KRASNOVA, N.A.;
MAL'TSEVA, O.I.

Evaluation of the properties of oil-resistant rubber-and-metal shock absorbers for the axle equipment of TE3 diesel locomotives. Trudy TSNII MPS no.267:100-106 '63. (MIRA 16:11)

RODZEVICH, N.V., inzh.; RUL'KOV, V.I.

Distribution of static pressures on bearing rollers. Vest. mash.
38 no.3:12-13 Mr '58. (MIRA 11:2)
(Bearings (Machinery))

RULL, Janos, Dr.

Prostatic leiomyosarcoma with vesical metastasis. Magy. sebsegzet 11
no.2:161-163 Apr-June 58.

1. Az Orvostovabbkepzo Intezet (mb. igazgato: Dr. Barsony Jeno, az
orvostudomanok candidatusa) Urolozai Osztalyanak (Foorvos: Dr. Farago
Gyorgy) kozlemenye.

(LEIOMYOSARCOMA, case reports

prostate, with vesical metastasis (Hun))

(PROSTATE, neoplasms

leiomyosarcoma with vesical metastasis, case report (Hun))

(BLADDER, neoplasms

leiomyosarcoma, metastatic from prostate, case report (Hun))

RULL, JANOS, dr.

DUCHON, Jeno, dr.; RULL, Janos, dr.

Neuralgic complaints accompanying calculi of maxillary sinuses. Orv. hetil. 98 no.18:475-476 4 May 56.

1. A Pecsi Orvostudomanyi Egyetem Ful-orr-gegeklinikajának
(igazgató: Székér, Jeno, dr.) kozleménye.

(MAXILLARY SINUS, calculi

causing pain simulating trigeminal neuralgia (Hun))

(TRIGEMINAL NEURALGIA, differ. diag.

calculi of maxillary sinuses (Hun))

L 54704-65 EPA(s)-2/EWT(m)/EPF(n)-2/EWA(d)/EWP(t)/EWP(z)/EWP(b) - Pt-7/Pu-4

MJW/JD/WW/JG
ACCESSION NR: AP5014243

UR/0383/65/000/002/0044/0048
621.774.1

37

36

3

AUTHOR: Rulla, N. V. (Candidate of technical sciences); Solov'yev, Yu. G.; Chizh, V. A.

TITLE: The effect which physical and mechanical factors in the centrifugal casting process have on quality in hollow steel pipe billets

SOURCE: Metallurgicheskaya i gornorudnaya promyshlennost', no. 2, 1965, 44-48

TOPIC TAGS: pipe manufacture, centrifugal casting, steel pipe, metal mechanical property

ABSTRACT: The authors show the advantages of centrifugal casting over stationary casting of pipe billets with a parallel series using 35 carbon steel and Kh18N9T stainless steel. The speed of solidification, (determined by the pouring rate), and the speed of mold rotation (1000-1500 RPM for the centrifugal case) were the main variables while the presence or absence of vibration during solidification was also studied. Mechanical properties were studied. The authors found macroetching of the billets to be unreliable and studied the surface by including the isotope

Card 1/2

L 54704-65

ACCESSION NR: AP5014243

^{S³⁵} in the melt and taking autoradiographs of the solidified billet. During centrifugal casting the interaction between the breaking off of pieces of newly solidified crust and remaining liquid metal is dependent on the vibration, in addition to the solidification rate, in that vibration provides for a much less dendritic and acicular structure giving better mechanical properties. The effect of reheating the metal 40°C above the liquidus gives minimal properties while ductility and impact strength are increased for a 90° reheat above liquidus. Water quenching after holding for 20 minutes at 1150°C gave a 30-40% increase in mechanical properties. Specimens for mechanical tests were taken from both internal and external sections of the billets. Orig. art. has: 2 figures.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MM, IE

NO REF Sov: 000

OTHER: 000

Card 2/2 MB

S/123/61/000/007/010/026
A004/A104

AUTHORS: Rulla, N.V., Solov'yev, Yu.G.

TITLE: Fluidity and radiation coefficient of some high-alloyed carbon steels

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 7, 1961, 4, abstract
7G37 ("Tr. Ukr. n.-i. trubn. in-ta", 1959, no. 1, 162 - 176)

TEXT: The authors have carried out investigations of the fluidity of some carbon and high-alloyed steel grades (used for the central casting of pipes) to find out an expedient pouring temperature and crystallization rate. They have found the radiation coefficient to determine the end of the crystallization process which is being established by the variation of the radiation coefficient at different states of aggregation. The assay was poured into a green sand mold. The metal temperature was measured by a platinum-platino-rhodium thermocouple with rapid-action potentiometer and optical pyrometer of partial radiation. The authors present the results of determining the fluidity of 12 steel grades depending on the pouring temperature and the temperature of overheating exceeding the rated liquidus temperature. A linear dependence of the fluidity on the overheating temperature was found for two steel groups: chrome-nickel steels without Ti, Al and

Card 1/2

S/123/61/000/007/010/026

A004/A104

Fluidity and radiation coefficient ...

Nb and the remaining steel grades (including carbon steels). Two formulæ are presented to determine the two groups. The temperature value of partial radiation, obtained with the aid of the thermocouple and optical pyrometer, made it possible to establish the dependence of the radiation coefficient of carbon and high-alloyed steel grades on the temperature and state of aggregation, which makes it possible to determine the begin and end of crystallization with the aid of an optical pyrometer, and also to find the correction factor for incomplete radiation when measuring the temperature with optical pyrometers of partial radiation. There are 5 figures and 21 references.

A. Trukhov

[Abstracter's note: Complete translation]

Card 2/2

Rul'kov, D.I.

RODIONOV, Vasiliy Nikolayevich; RUL'KOV, D.I., retsenzent; NAUMOV, A.I.,
red.; MAKHUSHINA, A.N., red.izd-va; TSVETKOVA, S.V., tekhn.red.

[Ship handling in inland waterways] Sudovozhdenie na vnutrennikh
vodnykh putiakh. Moskva, Izd-vo "Rechnoi transport," 1957.
358 p. (MIRA 11:1)

(Inland navigation)

DUCHON, Jeno; KULL, Janos

Isoniazid injury of the 8th cranial nerve. Magy. belorv. arch. 10 no.10
no.5-6:196-198 Oct-Dec 57.

1. A Pecsi Orvostudomanyi Egyetem Ful-orr-gegeklinikajának (igazgató:
Szeker Jeno) közleménye.

(ISONIAZID, inj. eff.

on acoustic nerve, case report (Hun))

(NERVES, ACOUSTIC, eff. of drugs on

isoniazid inj., case report (Hun))

RULL, Janos, dr.: DUCHON, Jano, dr.

Prolonged retention of a foreign body in the esophagus. Orr. betil. 102
no. 26:1229-1230 25 Je '61.

1. Pecsi Orvostudomanyi Egyetem Ful-orr-gezeklinika.
(ESOPHAGUS for. bod.)

RULL, Janos, dr.

Vocal chord granuloma after intubation narcosis. Ful orr gegegygy
no.2:90-92 May 56.

1. A Pecsi Orvost. Egyetem Ful-Orr-Gegeklin. (igaz. Szeker Jeno dr.)
kozl.

(ANESTHESIA, ENDOTRACHEAL, compl.
granuloma of vocal chord (Hun))

(VOCAL CHORD, neoplasms
caused by endotracheal anesth. (Hun))

(GRANULOMA
vocal chord, caused by endotracheal anesth. (Hun))

DUCHON, Jeno, dr.,; RULL, Janos, dr.

Pylorus stenosis after acid & alkali poisoning. Orv. hetil. 97
no.1:25-26 1 Jan 56.

1. A Pecsi Orvostudomanyi Egyetem Full-Orr Gegeklinikajának
(igazgató: Szeker Jeno dr.) kozleménye.

(PYLORUS, stenosis
caused by acid & alkali pois., x-ray diag. (Hun))

(POISONING
acid & alkali, causing pylorus stenosis (Hun))

KOLLAR, Dezso, dr.; RULL, Janos, dr.

Etiology of inflammation of the ear with special reference to fungi.
Orv. hetil. 95 no.52:1431-1433 26 Dec 54.

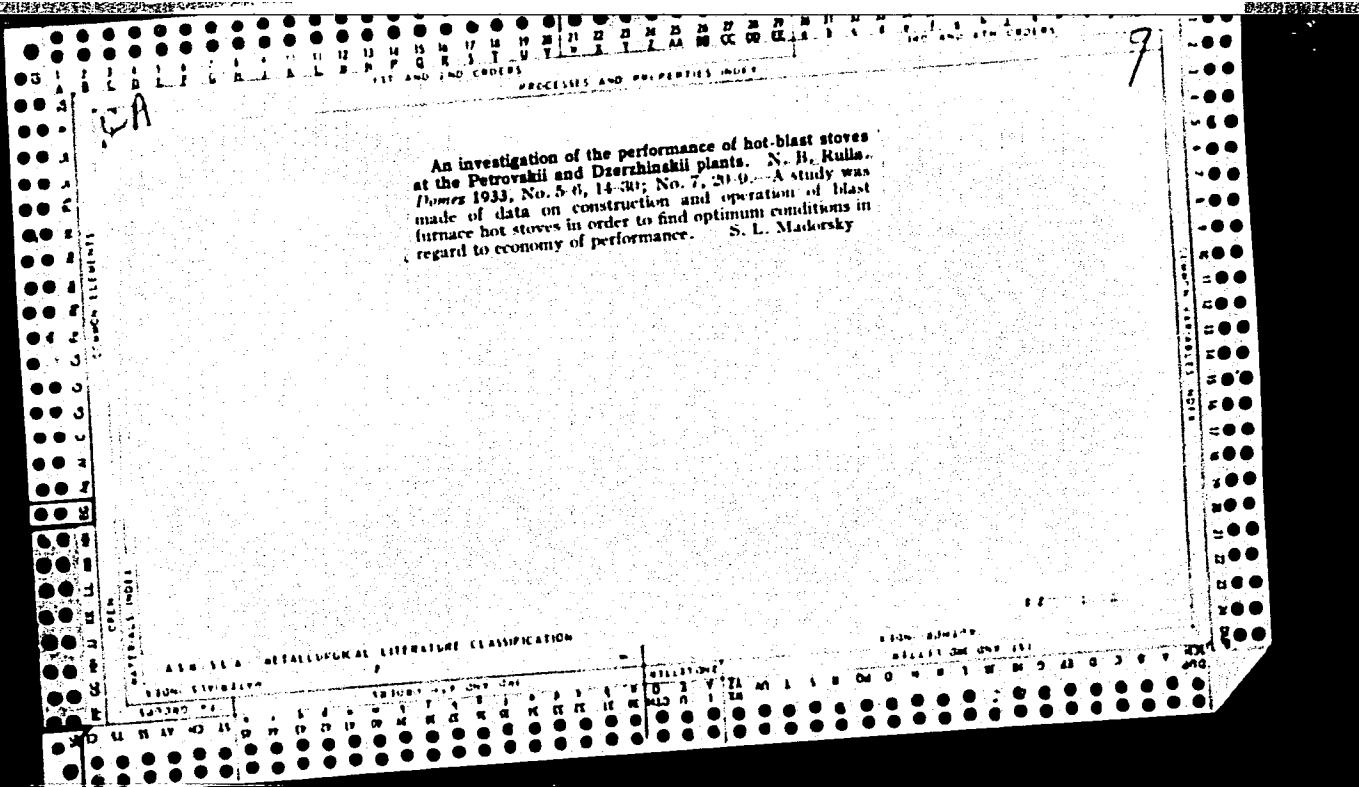
1. Pecsi Orvostudomanyi Egyetem Gyermekklinikajának (igazgató:
Kerpel-Fronius Odon dr. egyet. tanár) és Ful-orr-gége Klinika-
jának (igazgató: Szeker Jenő dr. docens) közleménye.
(FUNGUS DISEASES
ear)
(EAR, dis.
fungus dis.)

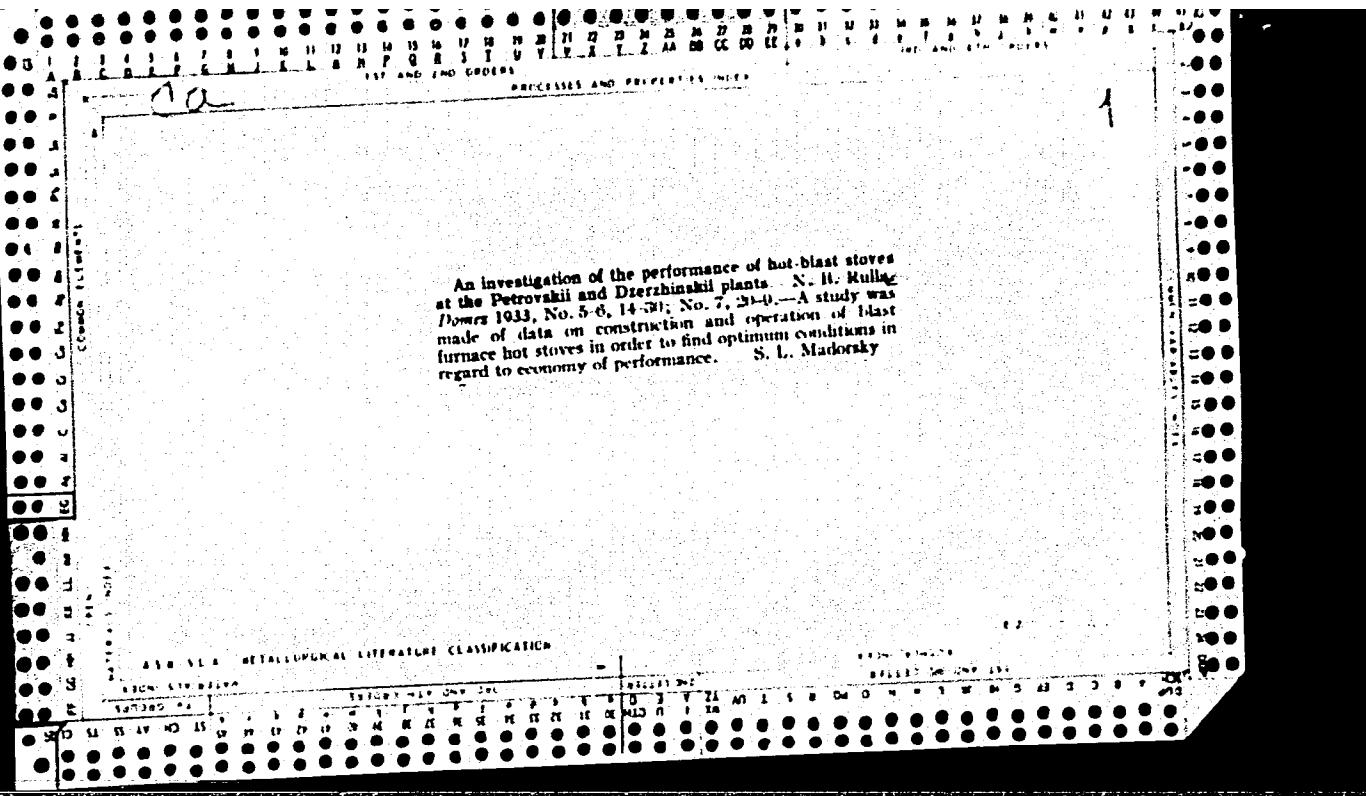
RULL, Janos, dr.; TIGYI, Andras, dr.; MIRISZLAI, Erno, dr.; BAUER, Miklos, dr.

A quantitative method for the study on expectoration. Fulorrgegegyo-
gyaszat 8 no.1:36-41 Mr '62.

1. A Pecsi Orvostudomanyi Egyetem Ful-, Orr-, Gegeklinika janak
(Igazgato: Alföldy Jeno dr. egyetemi tanar) es Elettani Intezetenek
(Igazgato: Lissák Kálmán dr. egyetemi tanar) kozlemenye.

(COUGH)





CA

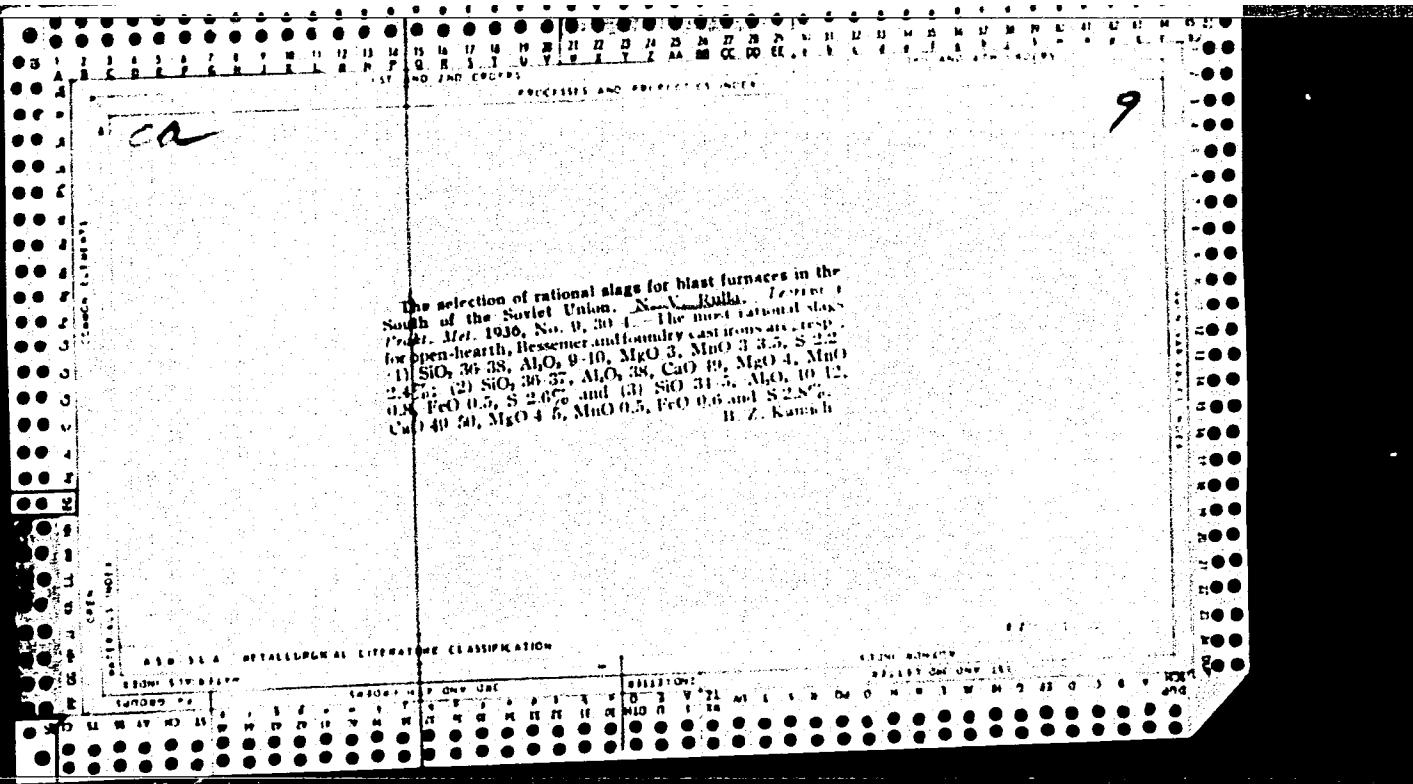
Solubility of sulfur in blast furnace slags as a function of composition and temperature of the latter. N. V. Rulla and B. A. Hess. *Domex* 1934, No. 8, 21-34. The effect of compn. and of temp. of slag during flushing on its S content was studied. Expts. were carried out

with blast-furnace slag during operation of the furnace and with slag mixts. on a small lab. scale. In the former case 250 samples were taken from 3 furnaces, flush temps. measured and the chem. compn. of the samples was detd. In the latter case the slag mixts. were melted in graphite crucibles measuring 25 cu. in. inside diam. and 15 cu. in. high; heated in an elev. furnace to temps. 1350°, 1450°, 1550° and 1600°. A higher temp. favors the formation of a more basic slag, particularly rich in CaO, which in turn favors a high S content. The presence of FeO lowers the S content; the lower the temp., the more it lowers it. Solv. of S in slag decreases with the introduction of MgO from 4 to 6.8%, reaching a min. at 0.8% and then increasing again; however, slags contg. less than

4% MgO are richer in S than those contg. more than 7%. Al₂O₃ does not act as a desulfurizer. However, at 1350°-1450°, slags contg. 13-15% Al₂O₃ are richer in S than those contg. 10-18%. The lowest solv. of S was found in slags contg. 9.7-10.5% Al₂O₃ and 5.7% MgO, but if the MgO is raised to 8.9% and the Al₂O₃ is kept at 9.7-10.5%, the slag can hold more than 32% S at 1520°-1550° and 1600° when the acidity is 0.72, and at 1350° when the acidity is 0.71. Slags contg. 10-18% Al₂O₃ and having an acidity of 0.9-0.72 will hold a large amt. of S at 1350-1600° if the MgO is kept below 4.5%. Ordinary Martens cast iron slags contg. 6% MgO will hold 3% S at 1450°, provided the CaO is lowered, the MgO content is also lowered and the Al₂O₃ is raised. For slags contg. more than 6% MgO a decrease in CaO should be accompanied by an increase in MgO and Al₂O₃. An increase of CaO by 1% will raise the S solv. 0.17%, in the interval between 40-50% CaO. In highly basic slags where SiO₂/CaO = 0.45 and CaO = 54%, an increase of MgO from 3 to 7% leads to an increase in S solv. In acid slags where SiO₂/CaO = 0.7 and CaO 47%, a similar increase of MgO decreases the solv. of S. In slags contg. 55-60% CaO, a MgO content of 8.9% lowers the solv. of S. An increase of MnO up to 3.2-3.5% increases the S solv. A further increase of MnO leads to opposite results.

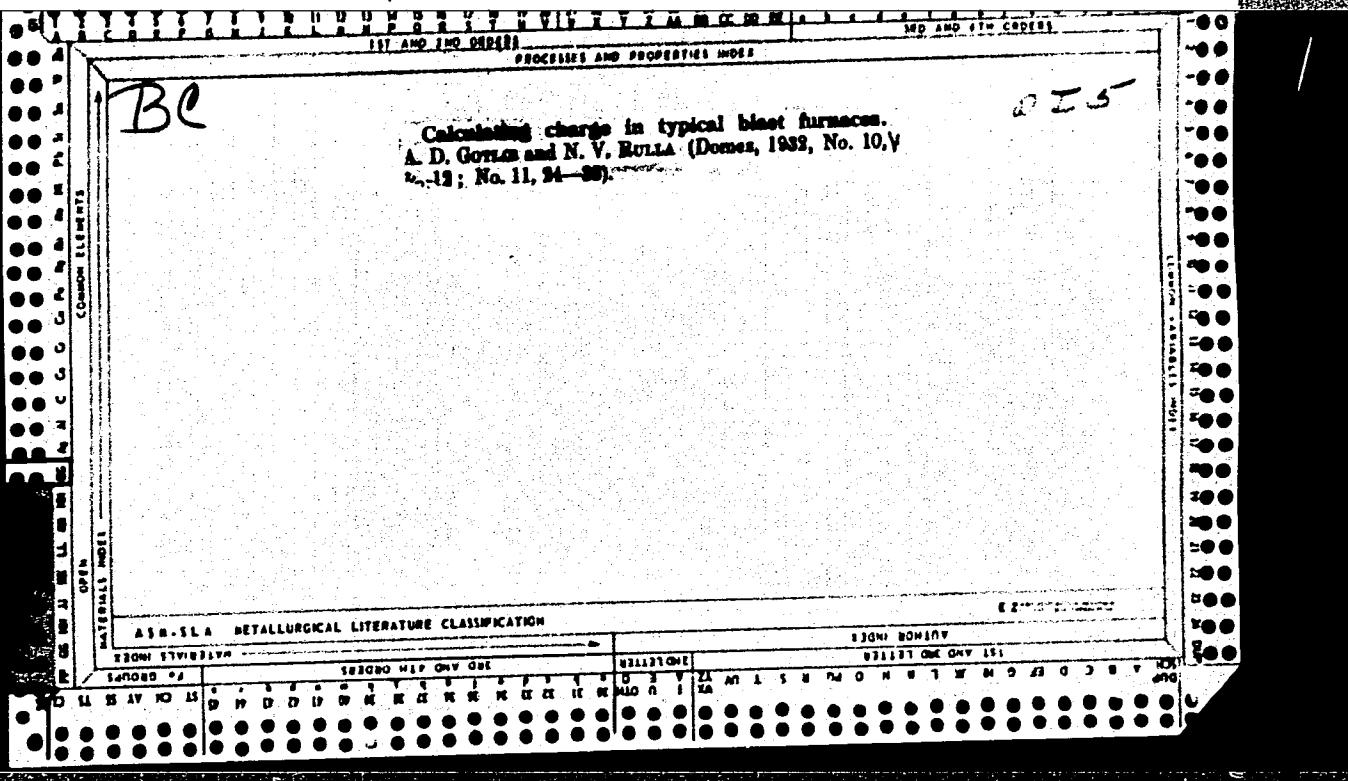
S. L. Madorsky

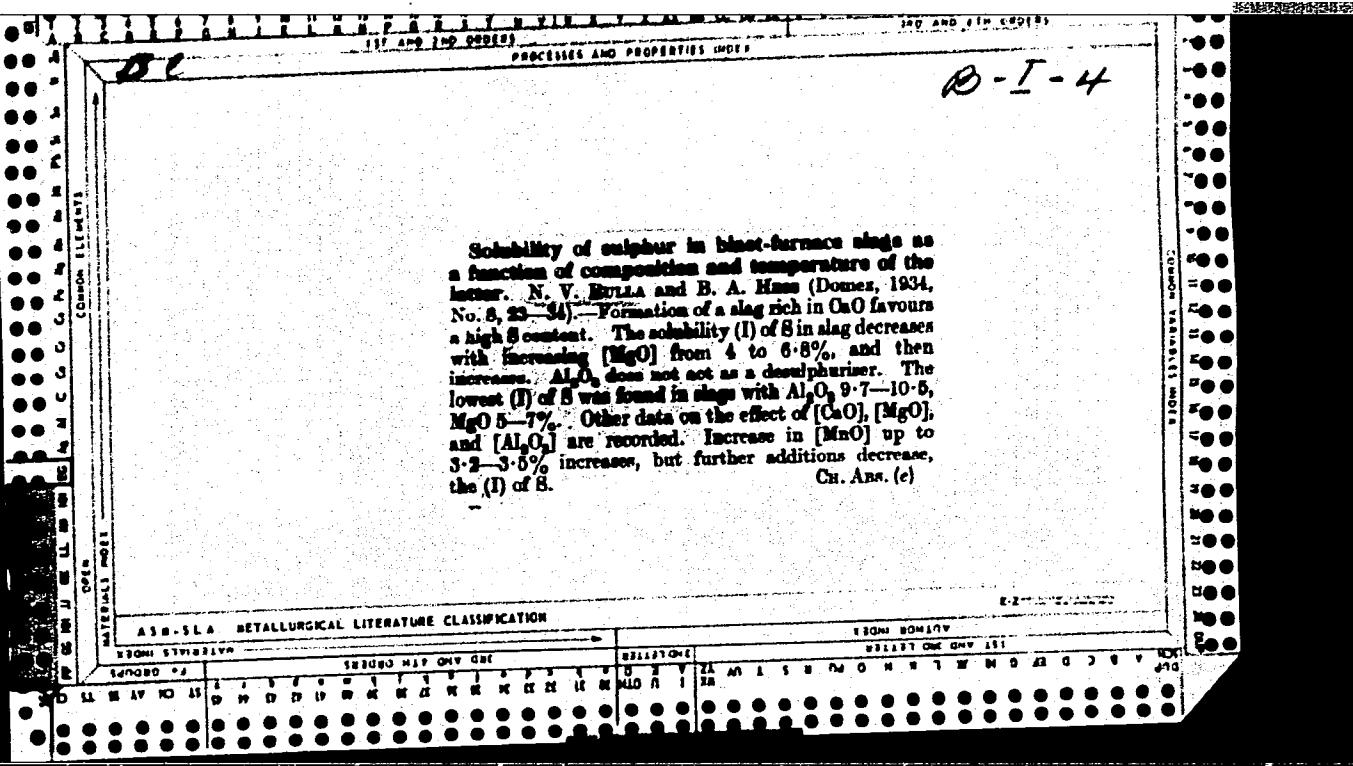
ASA-SEA METALLURGICAL LITERATURE CLASSIFICATION



ed

Method of calculating charge in typical blast furnaces. A. D. Gorin and N. V.
Reutov. Izmer 1932, No. 10, 1-12; No. 11, 24-31. - Calen. is made of heat balance
and quant. and chem. compn. of materials charged into a typical blast furnace, also of V
slag and pig iron produced on the basis of raw materials and metallurgical practice pri
vating in Russia. S. I. Matousky





The viscosity of blast-furnace slags N. V. Rulla
 Trans-Soviet Met. No. 11, p. 37 (1957). C. I. J. J.
 Note.—The viscosity and temp. of primary crystalline natural blast-furnace slags were determined. The slags used (over 200 samples) contained: SiO₂ 24.58-42.07; Al₂O₃ 4.37-28.23%; in most cases FeO did not exceed 1.7%; MgO 5. MnO 5.6 and CaS 7%. Slags were classified as (I) CaS-(MgO + MnO) > 2.5; SiO₂ + Al₂O₃ + CaO = 90 wt%; MgO/MnO = 3.0; (II) CaS/(MgO + MnO) = 0.6-2; SiO₂ + Al₂O₃ + CaO = 84-90%; MgO/MnO = 0.7-1.8; SiO₂ + Al₂O₃ + CaO = 88-92%; MgO/MnO > 3. In group I at 1450° the slag contg. 15-25% Al₂O₃ and 40-45% SiO₂ lack fluidity. An increase to 1500° lowers the % of slags contg. 5-12% Al₂O₃ and 40-45% SiO₂; this is not true of slags contg. 40-45% SiO₂ but over 15% Al₂O₃. A rise to 1500° has no effect upon the %. An increase to 1550° reduces more sharply the % of basic than of acidic slags having the same alumina content. The most fluid slags at a low temp. contain over 44% SiO₂ and 5-11% Al₂O₃. Slags most stable as regards % contain about 45% SiO₂ and 8-10% Al₂O₃. In group II the most fluid slags contain 8-10% Al₂O₃ and 42-38% SiO₂. The region of max. % corresponds to SiO₂/CaO = 0.82. When SiO₂/CaO > 0.82, the slags are more stable as regards % and the temp. of primary crystallization. In group III the addition of 3.5% Mg enlarges considerably the extent of fluidity. Slags contg. over 7% Al₂O₃ and 40% SiO₂ at a temp. of over 1500° may have a lower % than the slags in group II. For slags of all 3 groups located in the region of Al₂O₃ 8-13, SiO₂ 30-43, CaO 42-49%, a change in any of these

components has only a slight effect upon the %, especially over 1450°. Within the same region the effects of MgO, MnO and CaS upon the % were investigated in about 50 samples contg. 2-12% MgO, 0.5-6% MnO and 4-15% CaS. 2(MgO + MnO + CaS) was limited to 11-18%. Diagrams of % for 1450°, 1500° and 1550° were constructed. The % diagrams for the 3 component system SiO₂-Al₂O₃-CaO agree well with the m.p. diagrams of Wright and Rankin but they deviated considerably from the McCaffery % diagrams (C. I. 25, 1962). Some of McCaffery's data are in doubt and should be used only with great care.

B. Z. Kamich

Ch

Investigating the viscosity of blast-furnace natural slags. N. V. Ruffo, Domes, 1935, No. 10, 18-27; Progr. i Prakt. Met., 1936, No. 1, M-72. App. and method of calibration are described in detail. Three different slags (0-0.17 mm.) of the following compns. were used: (1) SiO₂ 31.3, Al₂O₃ 9.21, CaO 52.08, MgO 2.16, MnO 0.28, FeO 0.16 and S 2.31%; (2) SiO₂ 32.89, Al₂O₃ 0.25, CaO 46.63, MgO 4.99, MnO 4.24, FeO 0.70 and S 2.48% and (3) SiO₂ 35.30, Al₂O₃ 7.16, MgO 4.72, MnO 2.17, FeO 0.84 and S 1.58%. The amts. of Al₂O₃, MgO and CaO were changed in each run, but by varying the others, the relation between the various components was kept the same. The addn. of MgO up to 6% decreases the viscosity. In basic slags in which SiO₂/CaO (I) = 0.69-0.71 and (SiO₂ + Al₂O₃)/CaO (II) = 0.87-0.89, any further increase in MgO decreases the viscosity, but in slags in which I = 0.78-0.81 and II = 1.0-1.01, an increase of MgO from 5 to 8% increases the viscosity. Increase of MgO from 8 to 10% decreases the viscosity. MgO has little effect upon the m. p.. The addn. of MgO to highly basic slags (I = 0.5-0.6) lowers the m. p.. The addn. of Al₂O₃ gives 2 distinct viscosity maxima.

these maxima are at 12 and 10% Al₂O₃; when I = 0.69-0.82, they are at 13 and 17% Al₂O₃. Generally, the more acid the slag, the greater is the percentage of Al₂O₃ at which max. viscosities occur. In basic slags, an increase of Al₂O₃ lowers the m. p., but in acid slags, the m. p. is raised. An increase of CaO raises the m. p. and viscosity. Slags contg. a great amt. of CaO can remain liquid only at a high temp.. The larger the amt. of CaO, the faster the slag solidifies. The effect of CaS upon the viscosity of the slags is being investigated. B. Z. Kamich

9

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

SCANNED BY ASLIB

SEARCHED AND INDEXED

SERIALIZED AND FILED

REFUGED AND INDEXED

FILED AND INDEXED

INDEXED AND FILED

INDEXED AND SERIALIZED

SOV/123-59-16-64058

Translation from: Referativnyy zhurnal. Mashinostroyeniye, 1959, Nr 16, p 67 (USSR)

AUTHORS: Tikhonov, N.A., Osada, Ya.Ye., Rulla, N.V., Chukmasov, A.S., Trubchenko, P.A.

TITLE: A New Technological Process in Tube Rolling Industry

PERIODICAL: Byul. tekhn. inform. Dnepropetr. obl. otd. O-va po rasprostr. polit. i
nauchn. znanii Ukr. SSR, 1957, Nr 147-43-45

ABSTRACT: A new technology of the tubes production of alloy- and high-alloy steel is
described. Hollow hulls cast in rotary casting machines with revolving
chill-molds are used as tubular billets.

Z.Yu.D.

Card 1/1

18.5100
Translation from: Referativnyy zhurnal, Metallurgiya, 1959, Nr 5, p 269 (USSR)
SOV/137-59-5-11368
81538

AUTHORS: Tikhonov, N.A., Osada, Ya.Ye., Rulla, N.V., Chukmasov, A.S.
Trubchenko, P.A.

TITLE: A New Technological Process in Pipe Rolling

PERIODICAL: Byul. tekhn. inform. Dnepropetr. obl. otd. O-va po rasprostr.
polit. i nauchn. znaniy UkrSSR, 1957, Nr 4 - 5, pp 43 - 45

ABSTRACT: VNITI, together with the Yuzhnotrubnyy Plant developed and brought
into use a new technology of manufacturing seamless steel pipes
of carbon, alloyed and high-alloy steels grades. As the broaching
operation has been eliminated it is now possible to produce seam-
less pipes from almost any steel grades. The cast steel is teemed
through a special device of the chill into a rotating cylindrical chill mold.
The inner surface of the chill is covered with a layer of sand
to prevent the harmful effect of the liquid metal on the chill
wall, to improve the quality of the casting and to facilitate its
extraction from the chill; the sand is filled into the rotating
chill prior to teeming the metal with the aid of a revolving groove.
After solidification the casting is removed from the chill. ✓

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SOV/137-59-5-11368

A New Technological Process in Pipe Rolling

cooled on shelves or in special pits. Subsequently, if necessary, it is subjected to mechanical treatment of its external and internal surfaces. The external diameter and the length of the castings are controlled by the dimensions of the chill and the wall thickness by the amount of the cast metal. The blanks are cast with an external diameter of 35 - 900 mm, 8 - 150 mm wall thickness, 300 - 5,500 mm length and 4 - 4,000 kg weight. Rolling is carried out in such a manner that changes in the diameter during the initial period of deformation, particularly, in rolling pipes of alloyed and high-alloy steel grades, is at a minimum and the compression of walls is gradually increasing. When the relative compression of the walls exceeds 30%, changes in the diameter can be performed within a considerable range. The introduction of the new technology resulted in the elimination of a number of remarks, reduction of investments, reduction of metal consumption for the manufacture of pipes of one steel grade by a factor of 2 - 10. Consumption of technological instruments was reduced twice as well as electric power and fuel consumption; labor conditions were improved.

Ye.T.

Card 2/2

S/123/61/000/004/015/027
A004/A104

AUTHORS: Rulla, N. V.; Chizh, V. A., and Solov'yev, Yu. G.

TITLE: Some problems of metal motion and the distribution of elements during the casting of hollow tube blanks by the centrifugal method

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 4, 1961, 19, abstract 4G147. ("Byul. nauchno-tekhn. inform. Ukr. n.-i. trubn. in-t, 1959, no. 8, 53-56)

TEXT: Investigations showed that phosphorus and sulfur, at a crystallization rate which is lower than the liquation rate, are distributed at the grain boundaries in the form of a lattice and separate globules which are connected among each other by fine webs. However, at high crystallization rates a relatively uniform distribution of the elements over the wall cross section can be observed. Calculations proved that the molecular diffusion does not affect the balancing of phosphorus and sulfur concentrations. The crystallization rate of the outer layers of tubular blanks was determined experimentally: when superheating of the metal was increased, the crystallization rate decreased. There are 2 figures. S. Zhukovskiy

[Abstractor's note: Complete translation]

Card 1/1

11500 also 1413, 1454

S/123/61/000/004/018/027
A004/A104

AUTHOR: Rulla, N. V.

TITLE: Centrifugal casting of hollow blanks of more than 660 mm in diameter from carbon and stainless steels

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 4, 1961, 19, abstract 4G153. ("Byul. nauchno-tekhn. inform. Ukr. n.-i. trubn. in-t", 1959, no. 8, 65-70)

TEXT: The author describes the basic technological parameters of the centrifugal casting of large-diameter hollow blanks from carbon steels and alloyed 1Kh18H12T (1Kh18N12T) steel: chill rotation speed - 360 rpm; sand layer thickness - 11 mm; chill temperature prior to pouring - 60°C; duration of pouring - 100-130 seconds; weight rate of pouring - 30-40 kg/sec for carbon steel and 25-45 kg/sec for 1Kh18N12T steel; carbon steel pouring temperature - 1,465-1,485°C, 1Kh18N12T steel pouring temperature - 1,470-1,495°C. To improve the inner surface of the casting, 100-120 kg furnace slag diluted by fluorspar was applied in a 3-5 mm layer to the inner hollow of the casting. Pouring was effected into a horizontal chill. It was proved that the blanks manufactured on centrifugal

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21791
S/123/61/000/004/018/027
A004/A104

Centrifugal casting of hollow blanks ...

machines fully satisfied the requirements of subsequent rolling treatment. There are 3 figures.

S. Zhukovskiy

[Abstractor's note: Complete translation]

Card 2/2

S/123/61/000/004/020/027
A004/A104

AUTHORS: Rulla, N. V.; Braga, V. T.; Rizol', A. I., and Furs, B. A.

TITLE: Centrifugal casting of bimetallic pipe blanks

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 4, 1961, 20, abstract 4G156. ("Byul. nauchno-tekhn. inform. Ukr. n.-i.. trubn. in-t", 1959, nos. 6-7, 135-140)

TEXT: The authors describe the technology of casting bimetallic pipe blanks (grade "10" steel and 1X18H12T [1Kh18N12T]) by the centrifugal method. During the development of the technology it was found that the application of a protective slag layer on the contact surface of the carbon steel base does not yield any advantages in comparison with the casting without protection of this surface from oxidation. All versions of casting without protecting the contact surface of the carbon steel layer from oxidation resulted in a fully satisfactory contact of the layers in the blank. Optimum results as to density and weldability of the layers were obtained when stainless metal was poured on a carbon base whose contact surface is near the solidus temperature of this steel. The latter version is the most technological one and simple to carry out. The quality of

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Centrifugal casting of bimetallic pipe blanks

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bimetallic blanks cast according to the developed technology corresponds to the requirements of the rolling technology. The investigations carried out showed the possibility of obtaining double-layer pipes by way of centrifugal casting and subsequent pilger rolling of the blanks. There is 1 figure and 3 references.

S. Zhukovskiy

[Abstractor's note: Complete translation]

Card 2/2

S/123/61/000/004/016/027
A004/A104

AUTHORS: Tsvetnenko, K. U., and Rulla, N. V.

TITLE: The effect of steel sprinkling during centrifugal casting on the quality of cast blanks and pipes rolled from them

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 4, 1961, 19, abstract 4G148. ("Byul. nauchno-tekh. inform. Ukr. n.-i. trubn. in-t", 1959, no. 8, 57-64)

TEXT: Investigations carried out on a centrifugal casting machine revealed the following defects of pipe blanks cast with sprinkling: 1) the macroscopic structure of the blank is multi-zonal with abrupt boundaries between the adjacent zones; 2) besides the zonal structure, the blank shows also a distinct nonhomogeneity of the chemical composition and a nonuniform change of mechanical properties over the wall thickness. It was found by tests that the hot deformation during the rolling of the blank does not change the character of the macrostructure, nor does it lead to a homogeneity of the chemical composition and uniformity of mechanical properties which, in this case, are preserved also in the ready

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The effect of steel sprinkling ...

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A004/A104

pipe. It is pointed out that carbon steel blanks cast with sprinkling should not be used for the manufacture of pipes. There are 2 references.

S. Zhukovskiy

[Abstractor's note: Complete translation]

Card 2/2

ACCESSION NR: AT4045010

S/0000/64/000/000/0160/0164

AUTHOR: Chizh, V. A.; Rudoy, V. S.; Rulla, N. V.; Chekmarev, I. A.; Fesenko, G. M.; Nesterova, N. N.

TITLE: Quality control of high-alloy austenitic steel ingots by the method of Gamma-defectoscopy

SOURCE: Soveshchaniye po probleme Izpol'zovaniye atomnoy energii. Kiev, 1961. Radiatsionnaya avtomatika, izotopy i yadernyye izlucheniya v naуke i tekhnike (Radiation automation control systems; isotopes, and nuclear radiation in science and technology); doklady soveshchaniya. Kiev, Izd-vo AN UkrSSR, 1964, 160-164

TOPIC TAGS: steel ingot, steel casting, steel forging, high alloy steel, austenitic steel, steel ingot structure, steel ingot defect, Ingot defect detection, Gamma defectoscopy

ABSTRACT: Air bubbles, porosities and blow holes are common defects in ingots of high-alloy austenitic steel. Because of the low plasticity of such steel at high temperatures, these defects lead to cracks and porosity and even to complete rupture of the ingot during forging and rolling. In order to facilitate the detection of such defects in steel ingots, the authors tested the method of γ -defectoscopy and compared the results with the behavior of the ingots during forging. Eleven

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ACCESSION NR: AT4045010

Ingots (80 x 270 mm) were examined by transillumination with γ -rays from Co-60, revealing deep bubbles and porosities in nearly all cases. During subsequent forging to a diameter of 40-43 mm (3-5 forgings with a 350-kg pneumatic hammer at 1150-1180°C), the 2 ingots with the deepest bubbles broke completely, and several others showed defective behavior, thus confirming the effectiveness and accuracy of the γ -defectoscopic technique. Finally, sections (3 cylindrical and 5 conical) were cut from the ingots and the compressibility was tested. The maximal critical compression (10%) was obtained in a section which was free of defects, showing that the plasticity is decreased by both bubbles and porosity. The authors conclude that quality control by this method will permit establishment of maximal permissible limits for defects in steel ingots, which is of particular importance in the case of ingots intended for pipe manufacture. Orig. art. has: 2 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 07Jan64

ENCL: 00

SUB CODE: MM, IE

NO REF SOV: 000

OTHER: 000

Card 2/2

"APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R001446020005-9

RULLA, M.V., kand. tekhn. nauk; BIGMA, D.G., inzh.; SAMOYLOV, G.D., inzh.

Effect of the conditions of centrifugal casting on the phase composition
of pipe steel. Proizv. trub no.10:75~80 '63. (MIRA 17:10)

APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R001446020005-9"

L 33967-65 EWT(d)/ENT(m)/EWP(k)/EWP(h)/EWP(b)/EWP(1)/EWA(d)/EWP(v)/EWP(t) PF-4
ACCESSION NR: AR5005709 JD S/0276/64/000/010/G043/G043

SOURCE: Ref. zh. Tekhnol. mashinostr.. Sv. T., Abs. 10G283 *LB*

AUTHOR: Rulla, N.V.

TITLE: Measuring the solidification period in a rotating permanent mold during centrifugal casting of hollow steel piping billets

CITED SOURCE: Sb. Proiz-vo trub. Vyp. 12. M., Metallurgiya, 1964, 64-67

TOPIC TAGS: centrifugal casting, hollow pipe billet, steel pipe, solidification time, pyrometer

TRANSLATION: The author describes a technique used in the industry to measure solidification times for centrifugally cast billets. The procedure employs an optical partial-intensity meter for measuring the temperature gradient in the mold during the casting process. The method is based on the use of a pyrometer.

SUB CODE: IE, MM ENCL: 00

Card 1/1

RULLA, N.V., kand. tekhn. nauk; SOLOV'YEV, Yu.G.; CHIZH, V.A.

Effect of physicomechanical factors of the centrifugal casting process on the quality of the metal of hollow steel pipe billets.
Met. i gornorud. prom. no.2:44-48 Mr-Ap '65.

(MIRA 18:5)

"APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R001446020005-9

TSVIL'YENKO, K.U., inzh. [decensed]; RULIA, N.V., kand. tekhn. nauk

Effect of the vibration of centrifugal machines on the quality
of castings. Lit. proizv. no.1:44 Ja '66.

(MIRA 19:1)

APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R001446020005-9"